



Updated: May 15, 2008

ARTICULATION AGREEMENT

Offered collaboratively by

MONTANA STATE UNIVERSITY-NORTHERN

and

MONTANA STATE UNIVERSITY-BILLINGS COLLEGE OF TECHNOLOGY
(Associate of Applied Science Degree –Diesel Technology)

For

BACHELOR OF SCIENCE DEGREE IN DIESEL TECHNOLOGY

I. SCOPE OF THE PROGRAM

Montana State University - Northern (MSUN) and Montana State University-Billings (MSUB-COT) hereby establish an articulation agreement leading to a Bachelor of Science Degree in Diesel Technology. The degree will be conferred by MSUN.

II. LENGTH OF AGREEMENT

This agreement will begin fall semester 2008. The parties commit to a review every other year. The next review will be fall semester 2010.

III. COURSE ARTICULATION

Students completing the **Associate of Applied Science Degree in Diesel Technology** at MSUB-COT will be granted 67 semester credits toward a Bachelor of Science degree in Diesel Technology at MSUN. Students must have 39 credits at the upper division (300/400) level to complete the degree program. Upon completion of the following technical courses as shown in **Exhibit A** and the meeting of all graduation requirements including the general education requirements as shown in **Exhibit B**, a Bachelor of Science degree in Diesel Technology will be awarded. 120 semester credits are required. **Exhibit C** provides an overview of degree requirements.

General education courses listed on the MSUN transfer equivalency guide will be accepted to meet part of the 33 credit general education core.



EXHIBIT A: Required technical courses

| Technical Courses to be completed at Northern | | Credits |
|--|---|----------------|
| ATDI 384 | Auto/Diesel Electrical/Electronic Systems III | 4 |
| METL 260 | Repair & Maintenance Welding | 3 |
| DIES 314 | Hydraulics & Pneumatics II | 4 |
| TSCI 304 | Fuels and Lubricants (Meets Cat. III Gen. Ed. Requirements) | (3)* |
| ATDI 400 | Shop Procedures | 2 |
| DIES 420 | Diesel Shop Management | 2 |
| DIES 440 | Advanced Fuel Systems | 4 |
| DIES 434 | Current Model Year Technology (Capstone Course) | 3 |
| DIES 450 | Diagnosis of Power Shifts and Heavy Duty Automatics | 4 |
| DIES 479 | Cooperative Education | 6 |
| | Technical requirements to be taken at MSUN | 32 |
| | General Education to be taken at MSUN | 24 |
| | Transferred Technical Courses | 58 |
| | Transferred General Education | 9 |
| | Total for degree completion | 123 |

* () Credits counted in General Education area.



EXHIBIT B (*Gen. Ed. Requirements)

| | |
|---|--|
| Category I | Communication (6 credits) ENGL 112 or ENGL 366 and SPCH 141 or SPCH 142 |
| Category II | Mathematics (3 credits) Math 110 or higher |
| Category III | Natural Science with 1 lab course (6 credits) AG 204, BIOL, CHEM, ESCI, GSCI, NSCI, PHYS, TSCI 110, TSCI 230, TSCI 304, TSCI 320 |
| Category IV | Social Science/History (6 credits) CMSV 101, ECON 241, 242, 346, POL 134, 235, 303, HIST 131, 132, 141, 142, 216, 374, PSYC 101, 205, 315, SOC 101, 240, SOSC 201 |
| Category V | Cultural Diversity (3 credits) NAS 105, 106, 220, 310, 330, 331, 350, 364, NURS 331, SOC 315, SPAN 105, 106 |
| Category VI | Fine Arts/Humanities (6 credits) ART 100, 115, 120, 150, 151, 204, 353, 361, 362, DRMA 109, ENGL 114, 201, 202, 214, 221, 222, 309, 310, 311, 330, 385, GDSN 270, HUM 201, MUS 101, 110, PHIL 200, 210 |
| Category VII | Technology (3 credits) AOT 301, CIS 110, CIS 320, IT 100 |
| Total General Education Credits 33 credits (In order to effectively meet the 39 credit upper division requirement, it is recommended 6 of the general education credits be at the 300+ level) | |

- Refer to the current MSUN transfer equivalency guide, or contact the MSUN Advising Center for general education equivalencies.
- https://atlas.montana.edu:9002/pls/hvagent/hwzkxfer.p_selstate



EXHIBIT C (Overview of Equivalencies)

| Program Tech Requirements | | MSUB-COT Equivalencies | |
|---|-----|---|---|
| ATDI 134 Electrical/Electronic Systems I | 4 | TRID 180 Electrical Systems | 4 |
| ATDI 265 Heating & Air Conditioning | 4 | TRID 152 Vehicle HVAC | 3 |
| ATDI 264 Electrical/Electronic Systems II | 4 | DIES 277 Adv. Fuel Systems & Diesel Engines | 6 |
| ATDI 257 Automatics | 4 | DIES 155 Advanced Hydraulics & Pneumatics | 4 |
| ATDI 384 Electronic Applications | 4 | To be taken at MSU-N | |
| ATDI 400 Shop Procedures | 2 | To be taken at MSU-N | |
| DIES 104 Intro to Diesel Engines | 3 | TRID 170 Engine Theory | 4 |
| DIES 114 Intro to Diesel Engines Lab | 3 | DIES 132 Diesel Engine Overhaul | 6 |
| DIES 115 Intro to Diesel Fuel Systems | 4 | DIES 117 Introduction to Diesel Fuel Systems | 4 |
| DIES 204 Intro to Hydraulics & Pneumatics | 2 | DIES 113 Introduction to Hydraulics | 2 |
| DIES 214 Hydraulics & Pneumatics Lab | 2 | DIES 114 Introduction to Hydraulics Lab | 2 |
| DIES 216 Heavy Duty Power Trains | 4 | DIES 245 Heavy Duty Powertrains/Powershifts | 4 |
| DIES 262 Diesel Engine Diagnosis & Repair | 2 | DIES 260 Diesel Engine Diagnosis | 3 |
| DIES 272 Diagnosis & Repair Lab | 4 | DIES 260 Diesel Engine Diagnosis | 2 |
| DIES 219 Heavy Duty Chassis | 4 | DIES 250 Heavy Duty Chassis | 6 |
| DIES 273 Diesel Shop Practices | 4 | TRID 150 Environmental and Shop Practices & DIES 255 or DIES 296 | 6 |
| DIES 314 Hydraulics & Pneumatics II | 4 | To be taken at MSU-N | |
| DIES 420 Diesel Shop Management | 2 | To be taken at MSU-N | |
| DIES 440 Advanced Fuel Systems | 4 | To be taken at MSU-N | |
| DIES 434 Current Model Year Technology | 3 | To be taken at MSU-N | |
| DIES 450 Diagnosis of Power Shifts & HD Automatics | 4 | To be taken at MSU-N | |
| DIES 479 Cooperative Education | 6 | To be taken at MSU-N | |
| METL 140 Intro to Welding & Cutting | 3 | TRID 151 Welding | 2 |
| METL 155 Machine Processes | 3 | Waived | |
| METL 260 Repair & Maintenance Welding | 3 | To be taken at MSU-N | |
| TSCI 304 (meets Gen. Ed. Cat III) Fuels & Lubricants | (3) | To be taken at MSU-N | |
| Program Gen. Ed. Requirements <i>See Exhibit B for eligible courses</i> | | | |
| Cat I – Communications (6 credits) ENGL 112 and SPCH 141 or 142 | | Please see the Transfer Guide online for courses to fulfill this area | |
| Cat II – Mathematics (3 credits) | | MATH 122 College Mathematics for Technology | 3 |
| Cat III – Natural Sciences (6 credits) | | Please see the Transfer Guide online for courses to fulfill this area | |
| Cat IV – Social Sciences/History (6 credits) | | COMT 109 Human Relations | 3 |
| Cat V – Cultural Diversity (3 credits) | | Please see the Transfer Guide online for courses to fulfill this area | |
| Cat VI – Fine Arts/Humanities (6 credits) | | Please see the Transfer Guide online for courses to fulfill this area | |
| Cat VII – Technology (3 credits) | | CMP 105 Introduction to Computers & Apps. | 3 |



IV. TUITION AND FEES

Tuition will be billed to each student at MSUN's prevailing cost-per-credit rate for all courses.

V. ADMISSIONS POLICY AND REQUIREMENTS

Admission requirements for MSUN are as follows:

- 1) Completed MSUN Application for Admission
- 2) \$30 non-refundable "one-time" application fee
- 3) In order to be in compliance with Montana state law, all degree seeking students or students carrying more than seven (7) credits, who are born on or after January 1, 1957 must show proof of two vaccinations against measles and one against rubella; "or" show documentation from a physician with dates of illness of having contracted measles and rubella; "or" file a notarized medical or religious exemption.
- 4) An official academic transcript from **all** accredited universities, colleges, and vocational technical centers attended. (Official college transcripts must be sent to the Admissions Office in a sealed envelope directly from the institution.)
- 5) Students transferring to MSUN must have a minimum cumulative transferable grade point average of 2.0 from all colleges or universities previously attended.

VI. FINANCIAL AID

All enrolled students are eligible to apply for financial aid at MSUN. Each student's situation will be evaluated on an individual basis. Students must apply for financial assistance through MSUN's Financial Aid Office.

VII. CONTACT INFORMATION

Admissions: 1-800-662-6132 ext. 3704

Registrar: 1-800-662-6132 ext. 3703

Financial Aid: 1-800-662-6132 ext. 3787

College of Technical Sciences: 1-800-662-6132 ext. -3740

Lynn Stilger ~ Diesel instructor

1-800-662-6132 ext. 4158, stilger@msun.edu

Larry Strizich ~ Chair, COTS

1-800-662-6132 ext. 3724, strizich@msun.edu

Greg Kegel ~ Dean, COTS

1-800-662-6132 ext. 4157, kegel@msun.edu



ARTICULATION AGREEMENT APPROVAL COVER SHEET

Participating institution(s) **MONTANA STATE UNIVERSITY-BILLINGS
COLLEGE OF TECHNOLOGY
(Associate of Applied Science Degree in Diesel
Technology)**

Articulated Program **DIESEL TECHNOLOGY**


Degree/Credential **BACHELOR OF SCIENCE**


Effective Dates Start: Fall Semester 2008 Renew: Fall Semester 2010

New Agreement Renewal/Revised

The undersigned have read and concur with the applicable policies and procedures for the attached articulation agreement.

MSU - Northern


Greg Clouse - Program Instructor


Larry Strizich - Chair, COTS


Gregory Keogh - Dean, COTS

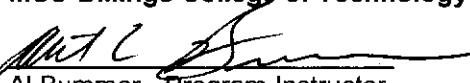

Shalini Albrecht - Advising

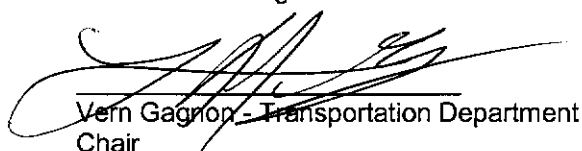

Steve Jamruszka - Registrar

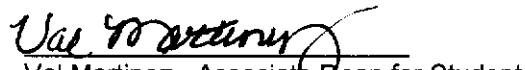

Joe Callahan - Provost

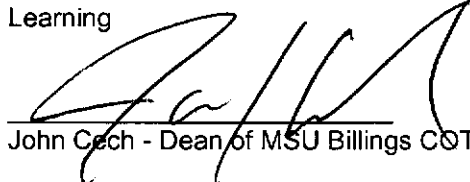

Rolf Groseth - Chancellor

MSU-Billings College of Technology


Al Bummer - Program Instructor


Vern Gagnon - Transportation Department
Chair


Val Martinez - Associate Dean for Student
Learning


John Cech - Dean of MSU Billings COT